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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Paper No. 27

Application Number: 09/351,723
Filing Date: July 12, 1999
Appellant(s): WOHLSEN ET AL.

Charles E. Gotlieb
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed June 2, 2003.

(1) ***Real Party in Interest***

A statement identifying the real party in interest is contained in the brief.

(2) ***Related Appeals and Interferences***

The applicant stated that there are non other appeals or interferences that will directly affect, or be directly affected by, or have a bearing on the Board's decision in this appeal.

(3) ***Status of Claims***

The statement of the status of the claims contained in the brief is correct.

(4) ***Status of Amendments After Final***

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) ***Summary of Invention***

The summary of invention contained in the brief is correct.

(6) ***Issues***

The appellant's statement of the issues in the brief is correct.

(7) ***Grouping of Claims***

Appellant's brief includes a statement that claims 23, 30, 37 and 25, 32 do not stand or fall together and provides reasons as set forth in 37 CFR 1.192(c)(7) and (c)(8).

(8) ***Claims Appealed***

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9)   Prior Art of Record

6,246,988   SCHIER   06-2001

5,897,616   KANEVSKY ET AL.   04-1999

(10)   Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 25 and 32 are rejected under 35 U.S.C. 112. This rejection is set forth in prior office action, Paper No. 16 and reproduce below for convenience.

Claims 25 and 32 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. As per claims 25 and 32, the applicant claimed as "voice recognition technique comprises speaker independent voice recognition"; since voice recognition is recognition of particular characteristics of a person's utterances; but speaker independent speech recognition does not recognize particular characteristics of a person's utterances, so it is inappropriate use of "speaker independent voice recognition". For examination purpose it is interpreted as "speaker independent speech recognition".

Claims 23-43 are rejected under 35 U.S.C. 103(a). This rejection is set forth in prior Office Action, Paper No. 16 and reproduced below for convenience.

Claims 23-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schier (US 6,246,988) further in view of well-known prior art (MPEP 2144.03).

As per claim 23, Schier teaches, "a method of obtaining a user's identity by voice, comprising:

"receiving a set of at least one known grammar and a set of at least one known voiceprint corresponding to a plurality of utterances from each of a first plurality of users" (col. 2, lines 39-56, the capacity to permit simultaneous access by multiple users);

"for each of the first plurality of users, associating the set of at least one known grammar and the set of at least one known voiceprint with an identifier of said user" (col. 3, lines 5-29, reads on ""security system comprises the caller's real time voice print of the authorization number to a previously recorded voice print of the caller speaking the authorization number");

"receiving at least one utterance from a subject user"(col. 3, lines 12-25, reads on "the caller speaks his or her authorization number into the telephone handset");

"performing a voice recognition . . . received from the subject user" (col. 4, lines 14-20, reads on "this can be accomplished using known voice recognition systems";

"for which the first voice recognition most closely matches at least one selected from the set of at least one grammar and the set of at least one voiceprint associated with the identifiers of the second plurality of users" (Fig. 3 a, element 221 and 222, here grammar is the verification number);

"from the second plurality of users, selecting the user for which a grammar of the first at least one of the at least one utterance received from the subject user most closely matches at least one of the set of at least one grammar associated with the

identifiers of the second plurality of users" (Fig. 3 a, element 210 and 211, here

grammar is the password);

"verifying a voiceprint of at least one of the at least one utterance has at least a

similarity to the set of at least one voiceprint of the selected user; and responsive to the

verifying step, providing the identifier of the selected user as the identifier of the subject

user" (col. 4, lines 14-37).

Schier does not explicitly teach, "responsive to the voice recognition technique,

selecting from the first plurality of users a second plurality of users, smaller than the first

plurality of users by a factor of at least ten". Official Notice is taken on the well-known

voice recognition system, which reduces recognized persons from the initial persons at

leas by a factor of ten. Therefore, it would have been obvious to one of ordinary skill in

the art the time of the invention to use well-known teaching to reduce users to a small

group and ultimately to a single person so as to have a less complex and faster

processing of speaker recognition for providing secure access to services and/or

facilities.

As per claim 24, Schier teaches, "wherein the voice recognition comprises

extracting a grammar from a second at least one of the at least one utterance received

from the subject user, the second at least one of the at least one utterance having at

least one difference from the first at least one of the at least one utterance" (Fig. 3 a,

element 211, user speaks password as second utterance).

As per claim 25, Schier teaches, " wherein the voice recognition technique comprises speaker independent speech recognition" (col. 4, lines 14-25, identification of pass number or password is a speaker independent speech recognition).

As per claim 26, Schier teaches, "wherein the first at least one of the at least one utterance comprises a password" (Fig. 3a, element 211, user speaks password).

As per claim 27, Schier teaches, "wherein a number of the second plurality of users corresponds to a constant" (Fig. 3, element 222, inherently pass number is constant, because it is previously assigned number).

As per claim 28, Schier teaches, "wherein the second plurality of users corresponds to users for which the voice recognition technique yields a confidence level exceeding a threshold" (col. 3, lines 42-47, thresholds).

As per claim 29, Schier teaches, "wherein at least one of the at least one utterance may be other than a real word" (col. 4, lines 14-36, pass number is other than a real word).

As per claim 30, Schier teaches all the limitation stated above in claim 1, further Schier teaches,

"second input coupled to the storage output, and for providing at an output identifiers of the second plurality of users; a second recognizer having a first input for receiving the identifiers of the second plurality of users, and a second input for receiving at least one of the at least one utterance from the subject user, the second recognizer for extracting a grammar from the at least one of the at least one utterance received at the second voice recognizer input, and for selecting from the second plurality of users

the user for which the grammar extracted most closely matches at least one of the set

of at least one grammar associated with the identifiers of the second plurality of users

received at a third input coupled to the storage output, and for providing an identifier of

the selected user at an output" (Fig. 3a, element 211 as second input, element 213 as

second recognizer and element 212 retrieves the stored password and user's voice

print, output as element 215 as valid user);

"a verifier having a first input coupled to the second recognizer output, the verifier

for obtaining a voiceprint of at last one of the at least one utterance received at a

second input, and for verifying a voiceprint of at least one of the at least one utterance

has at least a similarity to the set of at least one voiceprint of the selected user received

at a third input coupled to the storage output; and responsive to said verification,

providing at an output the identifier of the selected user as the identifier of the subject

user" (col. 4, lines 38-58 and Fig. 3a, element 215).

As per claims 31-43, they are interpreted and thus rejected for the same reasons

set forth in the rejection of claims 23-30.

(11) *Response to Argument*

(A) The applicant argues: "examiner has not shown that the use of "Voice

recognition" is improper".

The examiner disagrees with the applicant's assertion because the examiner

make it clear why it is improper to use "speaker independent voice recognition" at Paper

No. 22 (Advisory action) based on the applicant's argument the examiner states, "In

response to applicant's traversal of the rejection under 35 U. S. C § 112, second

paragraph the examiner notes that the term "voice recognition" is misused for what nowadays is called - - speech recognition- - in the speech processing art. While "voice recognition" and "speech recognition" were both once used interchangeably to refer to spoken word recognition, nowadays the terms are distinguished. The term "voice recognition" now denotes identification of who is doing the speaking (class 704/246), while "speech recognition" (or "word recognition") denotes identification of what is being said (class 704/231 and 704/251). So, appropriate correction to the proper terms of art is required. Where, applicant really means −speaker-independent speech recognition- - when referring to "speaker-independent voice recognition", which is what also Schier intends in the cited section". The applicant himself in the specification called it speaker independent speaker speech recognition (page 14, lines 15-16).

Here in the instant application the invention is directed to a two-step process of recognition, step one is a speaker independent speech recognition process (see page 14, lines 15-16) and step two is a speaker dependent speech recognition process or voice recognition process (page 17, lines 11-18, voice print). Therefore, the applicant is confusing to one of ordinary skill in the art by saying "voice recognition", where he actually means to say "speech recognition". As per claims 23, 30 and 37 the applicant also misuses the term "voice recognition" in lieu of "speech recognition", however the examiner understands by reading the specification what applicant intend to mean by "voice recognition".

(B) The applicant argues: "the examiner has not located the selecting the most-closely matching user step because no such selecting is disclosed by Schier".

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Here pointed in the rejection step 221 and step 222, because a pass number is verified by the step 222, which is provided by the user at step 201using speech, by recognizing pass number it would obviously cut down a small number of user from a large number of user list as stated in the rejection. Schier teaches matching spoken input to a grammar ("passwords, PINs, Passphrases or digits" see col. 2, lines 4-10), and also to a voiceprint, grammar reads on applicant's example of a "grammar" in the spec on Page 10, line 20 to Page 11, line 1. Selecting the most-closely-matching user is inherent in "the user is identified" (Abstract, *inter alia*) by this voice recognition system. The Official Notice taken for the reduced user list, is herewith backed up by a reference to Kanevsky *et. al.*, supplementing Schier.

(C) The applicant argues: "there does not appear to be a "voice reorganization system" that is well known".

The "voice reorganization system" is, of course, a typo for "voice recognition system". The examiner disagrees with the applicant's assertion because the well-known reference is cited by the examiner at Paper No. 4, which is mailed to applicant on April 14 2001, before the new rejection has been made (Paper No. 16). As soon as the applicant asked to see the reference (Paper No. 20) for the Official Notice, in the next

Office Action (Advisory action mailed on April 17, 2003) a clear portion in the reference

of Kanevasky (a well-known prior art) is pointed out to the applicant.

(D) The applicant argues: "examiner's purported voice recognition system does

not contain all the features of the claim element for which examiner has used it".

The examiner has interpreted the claim language in light of the specification. No

where in the applicant's specification disclosed "reduce recognized persons from the

initial persons by at least a factor of ten", however the examiner consider this language

to mean "reduce recognized persons from first plurality persons to a second plurality of

person, wherein second plurality of person is smaller than first plurality of persons".

Kanevsky teaches this limitation, Kanevsky teaches, narrowing down the initial list of

potential speaker to a smaller sub-list, "sub-list of speaker candidates, having indicia

substantially matching the speaker" (Abstract), so Schier plus Kanevsky et al. reads all

the independent claims limitations.

(E and F) The applicant argues: "examiner has stated no motivation to combine

any voice recognition system with the Schier reference with reasonable expectation of

success".

In response to applicant's argument that there is no suggestion to combine the

references, the examiner recognizes that obviousness can only be established by

combining or modifying the teachings of the prior art to produce the claimed invention

where there is some teaching, suggestion, or motivation to do so found either in the

references themselves or in the knowledge generally available to one of ordinary skill in

the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)and *In re*

Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, here motivation

is "have a less complex and faster processing of speaker recognition for providing

secure access to services and/or facilities".

(G) The applicant argues: "the features of the claim are not shown or suggested

by the combination of Kanevsky or Schier".

The examiner disagrees with the applicant's assertion because Kanevsky's "sub-

list of speaker candidates" (Abstract, *inter alia*) implies a drastically reduced list, which

should read on "smaller than the first plurality of users by a factor of at least ten"

according to applicant's specification.

(H) The applicant argues: "examiner has not shown the features of claim 30".

The examiner disagrees because the examiner rejected the claim 30 using the

same rejection as of claim 23, because the system claim 30 essentially have similar

limitation of method claim 23. Wherein for a second user repeating the same process

for a second user is an inherent expedite process.

(I) In response to applicant's argument the examiner notes that the examiner

does not fail to show reasons why "speaker independent voice recognition" is improper

under 35 U.S.C. 112, second paragraph. For example see final rejection (Paper No.

16); Advisory Action (Paper No. 22) and also above in the section (A).

The examiner does not fail to make out a prima facie case of obviousness

because the references combination teaching show all claimed limitations as explained

in the response to argument section.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,
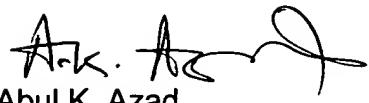
Abul K. Azad

RICHEMOND DORVIL
SUPERVISORY PATENT EXAMINER

December 15, 2003

Conferees

Richemond Dorvil (SPE 2654)
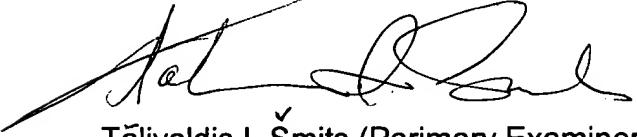
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